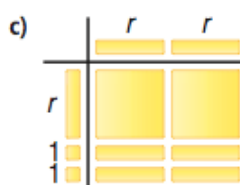
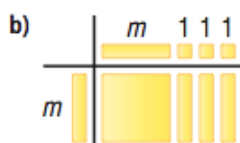
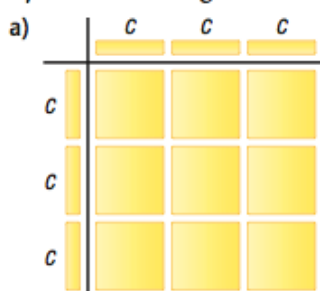


4. Write the multiplication sentence modelled by each set of algebra tiles.



6. Which of these multiplication sentences is modelled by the algebra tiles below?

- a) $2n(n + 2)$
b) $2(2n^2 + 1)$
c) $2n(2n + 1)$



9. a) Multiply.

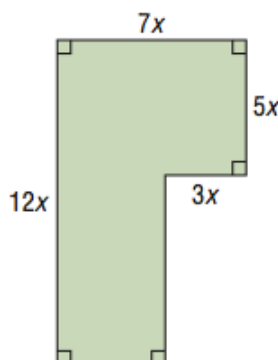
- i) $(3m)(4m)$ ii) $(-3m)(4m)$
iii) $(3m)(-4m)$ iv) $(-3m)(-4m)$
v) $(4m)(3m)$ vi) $(4m)(-3m)$

- b) In part a, explain why there are only two answers.
c) For which products in part a could you have used algebra tiles? For each product, sketch the tiles you could use.

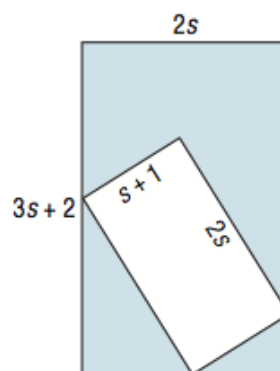
12. Use any strategy to determine each product.

- a) $2x(x + 6)$
b) $3t(5t + 2)$
c) $-2w(3w - 5)$
d) $-x(2 + 8x)$
e) $3g(-5 - g)$
f) $(4 + 3y)(2y)$
g) $(-7s - 1)(-y)$
h) $(-3 + 6r)(2r)$

22. Determine a polynomial for the area of this shape. Justify your answer.



19. a) Write a polynomial to represent the area of each rectangle in the diagram below.



- b) Determine a polynomial for the shaded area. Justify your strategy.
c) Determine the area in part b when $s = 2.5$ cm.

20. Determine each product.

a) $3m(2n + 4)$

b) $(-5 + 3f)(-2g)$

c) $7m(-6p + 7m)$

d) $(-8h - 3k)(4k)$

e) $(-2t + 3r)(4t)$

f) $(-g)(8h - 5g)$